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Front: A giant swallowtail sips nectar on tansy in an eastern Kansas meadow. Mike Blair filmed the butterfly with a 400mm lens with extension tube, f/9.5 @ 1/125.
Back: Bison can be seen at the Maxwell Wildlife Area. Mike Blair shot this scene with a 400mm lens, f/11 @ 1/125.
Camping For Your Soul

There is something about camping that is satisfying to your psyche. I don't profess to know much about psychology nor the intricacies of evolution. However, I do know that camping fills a void in your soul. This may sound like pretty heavy stuff, unless you have experienced the joys of camping. It is only when one leaves the safety and comfort of four walls and modern conveniences, that you can focus on “living essentially.”

Henry David Thoreau eloquently captured this feeling while spending time at Walden Pond. There he found peace with himself, his life, and his surroundings. Walden Pond was not a wilderness even in those days, but there Thoreau was able to escape the pressures that accompanied living in civilization. The stress and pace that goes along with modern day living are replaced by simple decisions on when to eat, sleep, and enjoy outdoor activities. While camping, these simple decisions crowd out the more complex questions that we face every day. Camping allows time to recharge our internal batteries and clear cluttered minds. There is really something cleansing about cooking meals over a fire, doing dishes, cleaning up camp and conducting the simple business of living outdoors.

People across the nation are getting back to the basics. Fathers and mothers are teaching their kids what their parents taught them about camping. Whether there are two parents or the household is led by a single parent, trends indicate that folks are turning to nature and relearning what makes our environment tick. It is exciting to see a youngster marvel at insects or frogs or wildflowers, rather than hitting the reset button on the Super Nintendo or watching reruns of sitcoms.

The Kansas Department of Wildlife and Parks’ mission is to conserve and enhance Kansas’ natural heritage, its wildlife and habitats and to ensure future generations the benefits of the state’s diverse living resources, and to provide the public with opportunities for use and appreciation of these natural resources. To that end, our commitment is to provide the essential services for an enjoyable experience outdoors. Priorities include the construction and maintenance of clean and safe restrooms and shower buildings. Equally important is our goal to make campers feel comfortable at the campsite.

First-time campers can take advantage of the Rent-A-Camp program offered at six state parks. This program is available to all and is especially beneficial for individuals having little or no camping equipment. Thanks to generous donations from the Coleman Company, groups of up to four people can rent a tent, cots or foam sleeping pads, stove, lantern and water cooler for $10 per night. Park staff are available to help with set-up and operation of camping equipment.

A visit to a state park is often more than just camping, though. From bass tournaments to music concerts to down-home festivals, each year the number and diversity of special events grows. Park managers and department staff are continually evaluating programs to ensure that family activities are emphasized.

Enjoying the outdoors at our state parks also requires a great deal of responsibility. Campers should be responsible to themselves and to nature. In order for others to enjoy these outstanding natural resources, it is imperative that campers respect their surroundings. Even more important, is the responsibility of the camper to “keep in touch” with Wildlife and Parks. As a participant in outdoor recreation in Kansas, you are a vital link to its future. We invite you to share your opinions and ideas with us. We also encourage you to contact your legislators to let them know of your experience at Kansas parks and public lands. Your comments and suggestions help shape the direction of department activities and will help us to provide all Kansans a rich variety of quality outdoor experiences.

Camping provides an opportunity to release those pent-up drives and experience what we were “programmed” to experience. Certainly, we humans were not designed to live out our existence in crowded cities with the turmoil associated with our modern lifestyles. No, I suspect that you, like me, will find that some of your most satisfying memories will be time spent with your family camping and “living essentially.” Come on outdoors and let yourself experience what camping is all about -- it’s about living simply, something from which we would all benefit.
Butterflies provide a wide array of extraordinary colors, intriguing life histories and seasonal variety. Butterfly watchers may learn about associated plants, soils, weather, climate and habitats, which will make the study more successful and enjoyable.

Butterfly watching is probably the least appreciated of the three most colorful outdoor pursuits, including discovering wildflowers and birding. Yet butterflies offer a great variety of the most colorful patterns and fascinating life histories to be found in the natural world. Few other subjects in the realm of nature offer the variety of adaptations to their environment, the wonderment of transformations during development, and the vast array of bright colors.

Enjoying butterflies, whether adults or developing stages, gives a unique window into our natural world. You cannot fully enjoy butterflies in all stages without developing an interest in associated plants, animals, soils, landforms, weather, climate and habitats because they all interact together. To best enjoy butterflies, you soon become a botanist, geologist, reader of clouds, and in fact, a general all-around naturalist. And no other miracle in nature compares to the sheer wonder of butterfly metamorphosis. It is difficult to believe your eyes when you witness this event. Butterflying can be as rigorous or as gentle as you wish to make it and, like birding, it can be as intellectu-
ally demanding as you wish to make it.

In many ways, butterflies are a complement to wildflowers and birds. They are not so diverse and mind boggling as wildflowers, yet just as diverse as birds. They are as colorful and many-patterned as flowers, and they are as fascinating as birds in their behavior but much easier to approach and watch close up.

My interest in butterflies was encouraged by my mother, along with other natural outdoor activities including birding, bird egg collecting, flower gardening, fishing, hunting and trapping. Rural farm life lacked the mechanized lifestyle of today. We had no electricity, so there was no radio, TV, air conditioning or telephone. Nearly all activities and recreation centered on the natural world. Screened windows were open at night, and the sounds of insects, birds, frogs, and other night creatures were part of our close association with the environment. By day butterflies, birds and the vast assortment of insects, frogs, toads and reptiles were close at hand.

We were a large family, and my two younger brothers and I called ourselves "The Three Musketeers." We spent our leisure time along Cedar Creek fishing, catching butterflies, observing bird life and exploring other outdoor wonders. We did not have an insect net for capturing butterflies but instead built wooden guns to propel rubber bands cut from car tire inner tubes.

Our first efforts at preserving our specimens was to press butterflies into a book. However, this was not satisfactory as the body was smashed and the wings usually uneven. Later we tried cutting a body-shaped slot out of the book to allow space for the body. Eventually we learned to use pins and pinned specimens to dry for display.

As I passed through my teenage years, my association with the outdoors decreased. After high school I worked as a ranch hand at the Rogler Ranch. Then a hitch in the

The red-spotted purple, top, and question mark, middle, are commonly seen in urban settings. However, to observe the regal fritillary, bottom, you must visit prairie habitats.
Swallowtails are among Kansas’ largest and showiest butterflies. The black swallowtail is beautiful, but its larva can be a nuisance on garden plants such as dill and parsley.

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Marine Corps provided international travel, with time in Hawaii, Guam, Pacific islands and Japan. Through my travels I was able to study oceanic birds and tropical butterflies.

After discharge from the military, I attended Kansas State University and Colorado State University to earn a degree in zoology and wildlife management. This allowed me to continue my lifelong interest in wildlife and the outdoors.

Many memories of early butterfly discoveries stay with me. The first time I saw a large yellow tiger swallowtail, I shot it with a rubber band gun. This broke the body in half and damaged the wings too much for mounting. I also remember zebra swallowtails clustered — probably as many as 50 or more — on a specific riffle along Cedar Creek. It was years later before I realized they were there only because there was a grove of Pa Pa trees near the riffle.

Mother’s flower garden was an assortment of annuals — zinnias, marigolds, cosmos, etc. — and attracted an assortment of butterflies such as the painted ladies, Virginia ladies, red admirals, monarchs, American swallowtails and others.

We always had a patch of dill that was especially attractive to American swallowtails. Once, Mother took a worm from the dill, put it in a jar, and I saw the worm change into a pretty green pupa that turned brown in a few days. A few weeks later it turned almost black and hatched into a gorgeous black American swallowtail. I had seen my first butterfly metamorphose. I still marvel at such unbelievable changes from egg to larvae to pupa to a gorgeous winged butterfly.

The giant swallowtail is found in the forested regions of eastern Kansas. It feeds on nectar of many flowers and readily visits butterfly gardens. Courtship flights (right) are beautiful and fascinating rituals. Several males chase an unmated female before pairing occurs.
The earliest butterflies to appear in spring are those that spend the winter as adults in hibernation, including the mourning cloak and the anglewings, such as the question mark, comma and gray comma. I have seen these butterflies during unseasonably warm periods in winter, and they are attracted to early-blooming pussy willow and rotting fruit as early as mid-March. If temperatures are warm, some of the wintering chrysalises of the painted lady, Virginia lady and red admiral hatch the third week of March and into April. I have seen bright, newly hatched red admirals as early as March 16 and painted ladies on March 20.

Many daffodils, tulips and hyacinths bloom in April, but butterflies are not attracted to them, preferring the lowly dandelion, winter cress, gooseberry and chickweed.

Early in April, more species begin to hatch, including the cabbage white, alfalfa yellow, eastern tailed blue, spring azure, orange tip, Henry’s elfin and several skippers. Flowering plum, redbud and other flowering trees and bushes are now available for a nectar food supply.

As the lilacs bloom, the larger, more showy swallowtails begin to hatch, and tiger swallowtails feed heavily on lilac. By now other garden flowers are beginning to bloom, and the swallowtails and many others are attracted to sweet rocket, sweet William and early annuals. Monarchs migrating north from their Mexico wintering grounds arrive at lilac time and renew their energy on lilac nectar before continuing as far north as Canada.

Toward the end of May, red-spotted purples and viceroys appear. They have spent the winter as small caterpillars rolled up in a leaf in a silk-lined hibernaculum.

By mid-June, as the milkweeds begin to flower, the fritillaries appear. The great spangled and regal fritillaries are the largest of this group and are quite fond of a variety of milkweed blossoms.

As the season progresses, more of the 183 species of butterflies and skippers known to occur in Kansas appear. They nectar on a wide variety of flowering plants, and their larvae feed on plant foliage, preferring phlox, sweet pepperbush, butterfly bush, asters, mint, zinnias and marigolds.

Some butterflies, such as the anglewings, admirals, hackberry and red-spotted purple will feed on fermenting fruit. More butterfly enthusiasts are putting fermenting fruit on feeders to enjoy viewing these beautiful insects. Some also plant gardens with butterflies in mind, and with a good field guide most species are easily identified. Watching butterflies was a natural extension of my love for the outdoors, and it has provided me with many hours of joy and wonderment.

Marvin Schwilling is a wildlife biologist who worked for the department for 37 years, most recently as a nongame research biologist, before retiring in 1990.
In the east-central part of Kansas lies a unique area of vast grassland called the Flint Hills. It has attracted an interesting blend of inhabitants and remains one of our state's greatest resources.
Unknown to most theater goers is an elevated stage of megaproportions that spans east central Kansas from Nebraska to Oklahoma. The continuously running shows range from musical comedy to dark mystery with remarkable scene changes highlighting most of the productions.

The curtain of time has fallen on the first two acts of human history in this vast arena. The first featured the saga of the native Americans—the Osage, Wichita and, most recently, the Kanza. The second act was the settlement of the western frontier. The third act, concurrently playing, is our time to perform. The program below names selected members of this modern cast and briefly examines their roles in the ongoing life drama on the stage we call the Flint Hills of Kansas.

**Range Manager** — The range manager is the guardian of grassland health and productivity who skillfully adjusts livestock numbers with available forage on the range. In their conversations, one hears the language of this balance. They speak of grazing systems, stocking rates, animal units, range sites, and indicator plants. Their tools are simple; tape measure, quadrant frames, maps, and their knowledge is of the intimate relationships between cattle and grass.

Native grasses are the lifeblood of the Flint Hills. Big bluestem, little bluestem, switchgrass and Indiagrass are but a few of the plants that sustain this prairie.

**Rancher** — The way of life of the Flint Hills rancher is inexorably linked to the limestone, the prairie soil, the weather and green sun-
deer have enriched hunting opportunities. Bobwhite quail hunters find the vast grassland and timbered creekbottoms ideal. And in these hills is the last continental stronghold of the greater prairie chicken, whose booming can still be heard on quiet spring and fall mornings. The tradition of fall prairie chicken hunting is as strong as ever.

People of faith — They journeyed to the Flint Hills to found their churches and raise their families — the Swedes, Irish, Germans, Czechs, Welch, English, Scots and French. These people injected ethnic richness that lingers in the villages and farms today. Some were the Mennonite farmers who planted their turkey red wheat on the western flanks of the hills and brought new prosperity to the mid-continent. Strong people with strong values have left their imprint upon the land.

Hunter — Across the sprawling landscape of the Flint Hills, an array of upland game birds and mammals invite the hunter. The recent return of the wild turkey and white-tailed

Fishermen — Waters from gurgling springs and upland riverlets form the streams that lace together the undulating hills and hold treasured gamefish such as the spotted bass and channel catfish. Watershed lakes offer largemouth bass, crappie and channel catfish. Most of the land and water in the Flint Hills is privately owned, so permission to fish is necessary. However, many ranchers generously share their treasure with those who ask and respect the land.

The Child — To be a child in the Flint Hills is to run upon a great lawn of gentle hills and to play in bubbly brooks on long summer days. Family trips to the hills offer wild
Flint Hills further bond the people to the prairie landscape. 

**Author** — Prairy Erth, Prairie Wanderings, poems by Clymer, and the folklore of Hoy are only a few of the literary works that gather the Flint Hills yesterdays and craft words to pass thoughts and feelings from ink and paper to the mind and the heart. 

**Tourist** — On the first entry into the Flint Hills a frequent “I didn’t know a place like this existed,” is heard. Visitors are often awed by the serenity, soft, curving lines of distant horizons, green hills and wildflowers, rambling unfenced roads through the high pastures of Chase County, structures of native limestone, and wooded valleys splashed in spring with the rich hues of the redbud. In the prairie towns, Main Street galleries house the work of artists and craftsmen, and the museums preserve the artifacts

A layer of limestone lies beneath the surface of much of the Flint Hills grassland, discouraging the plow, and preserving a prairie that looks today much like it did when pioneers settled. Places where horses gallop over rocky slopes and wildflowers peer from rocky outcrops and grassy meadows.

**Scientist** — From molecule to ecosystem, the scientist probes the structures and functions of the prairie’s myriad parts, seeking to understand their infinite relationships and finally attempting to devise strategies to guide it through times of peril. Among the scientists are geologists who know the ancient history of this land that was covered by a great inland sea during the Permian Age. Sediment laden with calcium-rich organisms built the limestone layers that were shaped by erosion into the hilly landscape we know today.

**Architect** — The architecture of Flint Hills structures reflects a simplicity and ruggedness characteristic of the life on the prairie frontier. In house, barn and village street, we see the limestone of the

The world’s largest concentration of greater prairie chickens resides in the Flint Hills. Each spring, the booming of these prairie grouse is heard throughout the region, awing viewers and photographers.
of human history from bird points of the native hunters to the needle point of the pioneer women. A surprise of the fine cuisine in village cafes awaits the hungry traveler and a good night's rest is just down the road in the quaint bed and breakfasts offered by many Flint Hills communities.

Photographer — Through the viewfinder, the photographer sees a fragment of the grand mosaic of the Flint Hills and imprints forever the selected image in time and place. Each element of the landscape seems to beg to be captured; to be enjoyed again and again.

The Painter — Like the film in the camera, the painter's brush catches on canvas the drama of the Flint Hills year. A horse and rider on a misty summer morning, raging fires of the burning season, and great billows of clouds towering over the prairie horizon, are images of the prairie landscape.

Musicians — The melody of the prairie winds through the tall grasses and the orchestrated calls of the prairie birds are part of the prairie song. In recent times, the sounds of nature have blended with those of talented musicians who have come to celebrate the prairie with performances titled “Symphony on the Prairie,” “Brass on the Bluestem,” and the “Flint Hills Gospel Festival.”

 Preservationist — Preservationists see the Flint Hills as the last tightly woven remnant of the fabric that once made up the vast North American tallgrass prairie. They view the prairie as a heritage to be secured for future generations. They hold true to their convictions in spite of voices that cry, “all is well with the land.”

The Farmer — Bands of fertile soil, accumulated for millennia from eroding uplands, spread outward from the water courses. These fertile bottomlands grow the grains and forages that sustain the cattle herds through the winter.

Kansans are truly fortunate to be able to enjoy the seasonal shows that play in the Flint Hills. Each has its own special delights and spirit. As players or spectators, we must act in ways that maintain the health of the landscape and its inhabitants.

This life-size drama in the Flint Hills is an exciting production for those who enjoy the prairie. Hold your applause. The drama is not over; there is more to come.
My family and I have a place that we truly love. It is our farm. We bought the farm six years ago, and it has been our passion ever since. As in the movie "Field of Dreams," we too believe in the words "Build it and they will come." We hope "they" are wildlife as we have worked tirelessly to improve wildlife habitat on our land.

It was a steamy, hazy July Saturday when we first laid eyes on what would soon become the center of our world. The road was dusty and there was a welcoming breeze blowing through the corn. As we rounded a bend in the road, we spotted an open field with a small, weathered, red barn in the corner. Behind the barn was a green backdrop of trees. Through the gate near the barn was a maze of rocky trails and roads canopied with whispering walnuts and hickories. Down at the foot of the trail was a small lake nestled in a valley which was now silent except for the mooing of cows now and then. The calm water reflected a perfect image of trees, land and sky.

Farther down the trail was a summit of the 160 acres; a peak which overlooks the area, and a perfect place to build a house. Below the summit was a flat field, green with corn and smelling of summer. At the field's edge, Salt Creek was singing its way through the property. The entire view was nothing less than heaven.

Few people ever get to view a
place this beautiful, let alone get a chance to live on it. We found it, loved it and bought it. It took four years of looking to find this land, and we had a family mission: to build a place for nature of all types - wetland creatures, woodland wildlife, trees, native grass, forbs and lake creatures.

Our first task was to build a shelter for our family visits, since we had two small children and a baby on the way. We converted the milkroom in the barn to a family room. My husband Mark paneled the room with barn boards from the corn crib, added a floor, ceiling and lights. We also installed a wood-burning stove, windows with curtains, a couch and a refrigerator: a perfect place to retreat after a hard day working on the land.

Things took a natural route from that point. We got acquainted with the property, and Mark started making phone calls to county and state agencies, seeking advice for improving the land. Many representatives from various agencies visited our land, and without their help we could have never accomplished our goal. These visits were exciting, and we asked endless questions.

Of all the ideas being considered, we were sure we wanted to expand the lake. Creating a wetland was another intriguing idea that came from our expert visitors. Our place was a natural for it. We would need to have a large borrow area to build up the dam and increase the size of the lake from 1.5 acres to 10 or 12 acres. A 15-acre bottom area was a perfect place to take soil for the dam, while cutting nice shapes for wet areas and islands. The area could be diked later to create a wetland.

Mark began to study and draw a series of plans of what would become our new lake. He is not an engineer, so the work was consuming and tedious. Using topographic maps, he designed a massive structure to be built in the middle of our property over the top of the existing dam. The original dam was 30,000 cubic yards and the new dam would be 95,000 cubic
yards, 57 1/2 feet tall and 700 feet long. It looked incredible on paper.

We turned the plans over to an engineer friend of ours for advice, then took the plans to Topeka to be approved by the state. As we waited for approval, we started looking for an excavator to do the work. To us it was like finding a good surgeon. This land is as important to us as our family. We had to find someone who would complete the work carefully. We reviewed work of interested excavators to find the right one.

After our selection, it seemed to take forever for the work to begin. Finally, one morning in July we got the word. You'd have thought we won the lottery. We took a day off work to view the core trench of the dam. Each day was very exciting. The scale of the work was incredible. There were six 627 scrapers moving 27 cubic yards of dirt with each trip. There were also two Z-D9 dozers, a grader and a backhoe. The crews worked 10 hours per day for 52 days, looking like prehistoric orange beasts pawing the hot, steamy earth.

The area where dirt was taken for the dam will be an extensive wetland.

Every night after work, we’d run up to the farm to see the progress. The huge machines would set creaking and hot from the day’s work. On October 7, 1994, we took our final walk at the lake. It was a barren sight. There were trees in piles over to the side and trenches around the area where the old lake had been to hold the remaining water in place. The dam was a giant in the middle of the property, waiting to hold gallons and gallons of water. There were gullies and trenches in the wetland. It was hard to believe that the area would come back to life.

We hurried to plant wheat to keep the soil from washing away. Most of the perimeter of the lake had to be hand sown. A friend helped with a four-wheeler, as the steep banks required an expert rider. We all worked together and got the job done and waited for the rain.

During the winter, we ordered our forbs and burned our fields. In mid-March, Mark scratched the wetland smooth with our tractor to prepare for planting as soon as the seed came in. All together we drilled 48 acres with blackeyed-susan, purple and white prairie clover, butterfly milkweed, coreopsis, thickspiked and bundled gayfeather, and others making a total of 24 different kinds of wildflowers. We also planted native grasses such as big and little bluestem, Indiangrass, switchgrass, western wheatgrass, eastern gama-

Mark Warnick plants wheat on the newly constructed pond dam to prevent erosion. The family also planted more than 1,000 trees, wildflowers, native grasses and forbs, as well as grain food plots. The efforts quickly paid off with increased wildlife sightings.
grass and blue gamagrass. We also planted milo and sunflower wildlife food plots.

The next step in our plan was to plant 1,250 trees. We planted sandbar willows along the edge of the creek, weeping willow on the nesting island, mulberry, black walnut, pecan, shagbark hickory, bur oak, red oak, white oak, pin oak, green ash, black cherry, hackberry, American persimmon, sycamore, bald cypress, swamp oak and chinkapin oak. We borrowed a tree planter from the state which has a seat for a rider to sit and two buckets on each side of the rider for the trees to sit. A plow cuts a furrow and the rider places the trees in the dirt.

After the trees were planted, we had to put down a mat. The black material covers the area around the trees, holding in moisture, preventing weed growth that could choke out trees and attracts warmth. This was a large job for two adults, three small children and our big hairy dog. But we got into a routine, and the work moved along.

Finally the rains came. We watched our lake fill and the swim dock we’d built float. The look of the lake changed dramatically, and it began to take shape. When the rains stopped, the lake was 12 feet short of being completely full.

We are thrilled to watch the growth of all our new plantings. We’ve also seen the wildlife come, including coveys of quail, song birds, turkeys, a bobcat and lots of deer.

On a hot and dry August afternoon, our alfalfa field turned into a fluttering wonder. More butterflies than I’ve ever seen in one place. We watched the bluebirds, expecting an easy meal, struggle to catch the butterflies in their irregular motion. It is a comfort to know that even though we aren’t able to be there all the time, the butterflies and bluebirds are doing their dance without us.

On one August evening, the kids and I drove to feed the cats and walked down to the lake. The rocky trail to the lake has a green glow in evening light. The bugs are making lots of noise as we walk, turning over rocks to check for fossils along the way. Once we get to the point, which is a spot that overlooks the lake, the magic begins. We all stand there looking into the blue-green water, amazed at how clear and deep it appears. There is no movement except for a few bubbles rising here and there. We all turn around and put our heads between our legs and look upside-down into the reflection for another view. The swim dock seems to be suspended in another world, suspended in the trees, a double image of itself. These evenings are truly one of the lake’s special gifts to our family.

Our family has devoted our time and efforts into what will be home for many other creatures besides us. We enjoy being together and working toward our goals. The perseverance of the kids has surprised and delighted me. They are always around and ready to jump in and work on some of the most backbreaking projects. We are also very proud of what we see happening on our land. Our family project is a rewarding effort.
THE MAXWELLS' PRAIRIE LEGACY

by J. Mark Shoup
associate editor, Pratt

The Maxwell Wildlife Area is a modern treasure that allows us to step back in time and experience the prairie, thanks to two brothers who fulfilled their father's dream.

In the heart of Kansas — near the break between the Smoky Hills and the McPherson Lowlands — lies a natural, preserved grassland of unparalleled beauty. Physically, Maxwell Wildlife Area comprises 2,254 acres of rolling hills and creek bottoms blessed with natural springs, but the story of the area is one of human foresight and dedication to preserving the natural heritage of the prairie, and to expanding human appreciation of this heritage. It is a story that begins and ends with buffalo.

It began in 1859 when John Gault Maxwell drove a herd of buffalo (properly, American bison) into McPherson County, hoping to adapt this native ungulate to the domestic ranching business. Maxwell established a claim, and in 1865, he married Amanda Irving, a young New Yorker who reportedly became the first white woman to settle in McPherson County. By this time, Maxwell was well established with a farm and ranch that included horses, cows, hogs, and, yes, buffalo. In 1869 John G. Maxwell, Jr. was born, and Henry Irving Maxwell followed in 1874.

Sadly, John, Jr. was only 7 and Henry just 3 when their father died of a sudden illness. However, the senior Maxwell's dream did not die with him. Widowed at 32, Amanda Maxwell was a strong-willed woman who sent both boys to col-

Mike Blair photo
lege and instilled in them their father's love of the prairie.

John and Henry were destined for success in the business world. But according to Miriam Worden of Hutchinson, who has spent years researching the two brothers, they had made plans for leaving to the State of Kansas some kind of wild animal refuge even before they became lifetime business partners.

"The Maxwell Game Refuge was their goal," said Worden in a 1987 article in Kanhistique. "Before Henry became associated with John's business world, the plan was on the drawing board." That would have been surprisingly early for such a concept because Henry, four years younger than John, finished college in the mid-1890s.

As partners, John and Henry amassed a small fortune in farming, milling, and banking, but in 1928, John died of pneumonia. He left his wife, Emma, quite wealthy in business and property interests in McPherson. (They had no children.) However, John left brother Henry the bulk of his land holdings, as well as stocks and other business holdings, and the Maxwell business grew until Henry's death as a single man in 1940.

Henry's will embodied the spirit and fashioned the mechanism for establishment of Maxwell Wildlife Refuge:

"Conforming to ideas agreed on between my brother, John Gault Maxwell, and myself regarding the disposal of the major portion of the respective estates, it was to devote something educational and/or beneficial for all the people, so I direct my administrators to buy not less than three nor more than six contiguous sections of land (pasture preferred), suitably improve it and stock it with buffalo, antelope, and deer, also with prairie chicken and quail. . . . Title is to be vested in some department of the national or state government."

It took two years to settle the estate of Henry Irving Maxwell. On July 17, 1942, Maxwell Wildlife Refuge was given to the people of Kansas through the Kansas Forestry, Fish, and Game Commission, now the Department of Wildlife and Parks. The brothers' dream was realized.

Once the land was acquired, a 7-foot fence was built around the refuge to retain the big animals. (An additional 306 acres, also part of the estate, comprises McPherson State Fishing Lake, surrounding campgrounds, and trails.) A number of wildlife were then stocked, including six elk, 13 buffalo, eight deer, and 25 pronghorns. While the antelope didn't adapt, the elk and buffalo have done very well, and the herds are maintained at about 50 elk and 200 buffalo.

John and Henry Maxwell made their dream come true, a dream that was meant to benefit all Kansans. In no other place in Kansas can buffalo and elk be readily viewed in their natural habitat. To allow visitors a better experience, the Friends of Maxwell group operates a tram ride through the area.

Elk are a native prairie wildlife species that disappeared before the turn of the century. A herd of approximately 40 elk is maintained at Maxwell. They are best viewed in the early fall.
began to emerge. Perhaps most creative was the funding process. Each year, Maxwell Wildlife Refuge had to sell a number of its ever-expanding buffalo population. In the early years, the animals were butchered and the meat sold. In more recent years, the animals had been auctioned annually to the highest bidders (bids which have gotten higher each year because this stock, raised on natural prairie, is some of the best in the United States). In both cases, the receipts went directly into the state’s Wildlife Fee Fund, where it was spent along with other funds on wildlife projects statewide, as needed.

It seemed that buffalo sales were the obvious revenue source, if the money could be channeled back to Maxwell. The newly created WILDSCAPE Foundation — an independent, non-profit fund-raising organization dedicated to conservation projects — provided the mechanism to re-channel the buffalo sales money. With approval from the Kansas Wildlife and Parks Commission, the department was able to give the excess buffalo to WILDSCAPE, who in turn would give the animals to the Friends of Maxwell, as the fledgling group was named. The Friends would then sell the buffalo at auction, and the proceeds would be held in trust by

natural habitat. The products of such dreams, however, must be nurtured if they are to survive. Not only must the land be cared for and the wildlife managed, but new ways must be created to help fulfill the dream of public use and enjoyment of an area as unique as Maxwell.

Unfortunately, the area remained relatively obscure for years. As former Region 4 Public Lands supervisor Ken McCloskey puts it, “We had a beautiful example of the natural prairie, of what Kansas really looks like, but hardly anyone knew about it or how to enjoy it.”

So the question remained, how could nature lovers enjoy this unique area and the wildlife that inhabit it?

Enter Friends of Maxwell.

In the early 1990s, biologist Bert Wilson contacted people in the community of Canton (six miles south of Maxwell) about the possibility of developing a local group to conduct activities and promote the area. The vision was to create some kind of wagon ride through the area, as well as chuck-wagon or campground cookouts, trail rides, and other activities. The two greatest issues in creating such a group involved money and control. The undertaking would require considerable funding that did not yet exist. In terms of control, local citizens did not want to spend days and weeks of their time, only to have a government agency dictate their every move. On the other hand, Wildlife and Parks wanted to ensure that the project was handled properly and that all activities were in keeping with sound wildlife management and use.

After several months of negotiation, creative solutions to all these problems began to emerge. The Friends group also operates a concession stand, and proceeds help pay for projects on the wildlife area.
WILDSCAPE until the Friends needed money for a project or operating expenses. A similar arrangement would be made when the group charged fees for rides or other activities, or when money was directly donated to the group.

In November of 1993, with these issues resolved, the Department of Wildlife and Parks and Friends of Maxwell signed a formal agreement.

"The thing that made this agreement work is that the department formed a true partnership with the community," says McCloskey. "Everyone was a player, and we had a great team."

Today, the Friends of Maxwell is in its third season under the careful guidance of Owen and Della Meier of Canton. "We run it like a business," says Owen — which would no doubt please the enterprising Maxwell brothers.

Under the care of the Friends and the Meiers' management, the project has developed a variety of activities. Central among these is the tram ride. While a traditional wagon train ride initially seemed romantic and ideal for the area, it soon proved unfeasible. The cost of keeping draft horses and maintaining wagons would be too great. What evolved was a modern-day version with a bit more comfort and flexibility — the tram.

Pulled by a four-wheel drive flatbed pickup, the open-air tram accommodates about 40 people in cushioned-seat, shaded comfort. The ride follows a leisurely three-mile route through the area, and except for the presence of the vehicle, it's easy to imagine stepping back in time. The pasture is simply pristine. Lush and never over-grazed, the grassland is a mix of big and little bluestem, side-oats and blue gramma, and other grasses adorned at various times of the year with blossoms of prairie coneflower, ironweed, blue wild indigo, nightshade, salvia, goldenrod, showy partridge pea, penstemon, and pitcher sage.

The most dramatic show for most visitors is performed by the buffalo. Although semi-wild, these huge beasts are commonly attracted to the tram. To the visitors' delight, Owen frequently stops and lets bison surround the tram, giving tourists the closest possible look at animals that roam in what appears to be a free range. Buffalo behavior varies, depending on the season. Young are born in April or May, so summer visitors always get a good look at young calves. In July, the cows cycle through estrus, and the bulls become quite aggressive. The bulls wallow in grass and often carry mats of wildflowers and prairie grass about their horns as they chase younger bulls out of their way. This behavior — nearly at arms length — combined with a wooly, 2,000-pound mass and a spine-tingling bellow reminiscent of a lion's roar, keeps spectators firmly glued to their seats. Small children leap to their parents' laps.

While much more elusive than the buffalo, elk sometimes offer early morning and late evening visitors another special wildlife viewing opportunity. In September and October, during the mating season, the odds are even better throughout the day as the bull elk's bugle can be heard echoing across the prairie.

Tourists from across the United States, Japan, and many other parts of the world have taken this unusual "amusement ride." Last year, eight writers from the U.S., one from Germany, and two television journalists from N-TV in Berlin took the tram ride in preparation for the upcoming 175th anniversary of the Sante Fe Trail, which takes place this year. Friends of Maxwell board members served as tour guides, and at the end of the trail, the journalists were served hot buffalo stew cooked over a campfire.

Such meals are another service provided by the Friends of
Maxwell. Buffalo stew, homemade bread, and cherry cobbler are common fare, as are buffalo burgers. "Supper on the Prairie" is offered once a month from June through September.

Another service the group provides is horseback trail rides. Riders furnish their own horses with the Meiers as guides on an all-day trip. "The best way to see the prairie is on horseback," says Della. "Wildflowers are in bloom, and the wildlife are easier to spot." Horses also help enhance the illusion of stepping back in time. By special arrangement, trail riders - as well as tram riders - may also be treated to a campfire meal of buffalo or elk meat at the end of the day.

One special event that is gaining in popularity at Maxwell is the annual Prairie Day, held in June. Throughout the day, tours of the buffalo herd are conducted while mountain men and Native Americans demonstrate their crafts in a rendezvous-like atmosphere. Wildflower and bird identification walks, wagon rides, and buffalo burgers are also available, as are stagecoach rides and wild-west theatrical presentations. Camping and picnic grounds are provided at the adjacent McPherson State Fishing Lake. The Canton Chamber of Commerce pitches in to help sponsor this event.

Through special arrangement, group tours — including wildlife and wildflower identification walks, tram rides, school field trips, and Scout campouts — can now be enjoyed at Maxwell Wildlife Refuge. Tours can be tailored to the needs of family reunions, conventions, student outings, or other gatherings.

All these experiences at Maxwell Wildlife Refuge were made possible because of a young pioneer's fascination with the Kansas prairie and its magnificent "buffalo." They were made possible, as Miriam Worden pointed out in 1987, "because a young widowed mother strived to carry on her deceased husband's dream." They were made possible because that mother's sons developed the dream into a goal and never lost sight of that goal, even in death. And perhaps most importantly, the experiences of Maxwell Wildlife Refuge were made possible through the active involvement of local citizens who decided to be friends of both land and people.

At Maxwell, a dream has become a reality where all may witness the Kansas prairie as nature made it. All it needs now, as McCloskey sees it, are "new ideas and new people to keep it going." With what's been done so far, the Friends of Maxwell shouldn't lack for inspiration.

Note: For more information on setting up a friends group in your area, contact the Kansas Department of Wildlife and Parks, (316) 672-5911. For more information on events and prices at Maxwell, phone (316) 628-4455.

Special thanks to Miriam Worden, and to Lynn Peterson of the McPherson Historical Society.
This strange looking creature hasn’t always been common in Kansas, but after a series of mild winters, it has become a common sight, especially in the southern half of the state.

"It looked just like an armadillo!" came the rattled words of a recent caller. "It had a long tail and ugly snout, and it ran pretty fast, just like a coat of armor with legs!"

"It probably was an armadillo," I answered from my office. I got the usual response, "In Kansas?"

Armadillos frequent southern Kansas now, and sightings have become routine. The diminutive armored critters are expanding their range north from traditional areas such as Texas and Oklahoma. A series of mild winters has probably allowed them to survive this far north and, as a result, they are more common now than ever before.

The armadillo’s natural historic range includes the tropical and subtropical regions of South America where they are eaten and considered to have a delicate taste. These mammals belong to the family Dasypodidae, which also contains the anteaters and sloths. There are 20...
The nine-banded armadillo is mainly nocturnal, feeding on soft invertebrates, worms, and some fruit and berries when insects are not available. While sluggish looking, armadillos can move with surprising speed when startled.

different species of armadillos and only one, the nine-banded armadillo (*Dasypus novemcinctus*), is found in the U.S., where it inhabits much of the south and southeast.

An armadillo’s appearance is unmistakable and may be best described by imagining a cross between a pig and a turtle. It has short, stout legs, protective armored plates covering the front and back quarters and an elongated snout covered with a few coarse hairs. An average armadillo may be 2 feet long, including the tail and weigh 15 pounds.

Armadillos are primarily solitary but may occasionally live in pairs or small groups. Long, curved claws suit them well for digging a series of burrows where they live and hide from predators. Their nocturnal diet consists of numerous insects, vegetation, small animals, and some carrion. The tongue is covered with a sticky fluid similar to that secreted by an anteater, which aids in catching insects.

Although armadillos are considered true endentates (mammals lacking teeth), they aren’t completely toothless. They have numerous small, nearly useless teeth which don’t function in defense or feeding and have no true roots.

Despite their appearance, armadillos are adept swimmers. They actually create their own boat
Its armor is its defense, and in addition to the jointed plates across the back, the armadillo's head is heavily armored. The pig-like face and strange armored shell make the armadillo one of our most unusual creatures.

as they swallow air to make themselves buoyant if they need to cross water.

The eyesight of armadillos is poor, and they depend upon their senses of hearing and smell for detection of food and avoidance of predators. They have few natural enemies, but many meet an early demise while crossing highways. Their first response to danger is to crouch motionless and then spring upward several feet at the last instant. While this behavior may surprise would-be predators, it is nearly 100 percent fatal with vehicles.

The reproductive cycle of the armadillo is unique and unusual among most mammals. Armadillos usually breed during the summer after they are 1 year old. Upon conception, the egg divides four times as it descends to the uterus where it enters a resting state known as vesicular blastocyst that lasts for several months. After completion of this state, implantation of the blastocyst occurs within the uterine wall usually during November. Within a gestation period of about five months, four genetically similar young of the same sex are born in an underground nest of grass and dry leaves. Baby armadillos are born without armor and their shell doesn't fully form until they are adults. Their eyes are open and they can move about following birth. The lifespan of the average armadillo is approximately four years.

Armadillos have a low metabolic rate with a body temperature lower than most mammals. Their level of bodily functions can be greatly reduced in a phase known as torpor, which can allow them to withstand short periods of severe cold weather. This, coupled with mild winters, may explain how they've expanded their range into Kansas.

This lowered body temperature may also explain why armadillos are the only nonhuman mammal capable of harboring the causative organism known to cause leprosy. The leprosy bacillus incubates best at temperatures below those considered normal for most mammals.

Armadillos are a unique addition to Kansas' fauna. Their ability to change and adapt to diverse environmental conditions illustrates the drive certain species of animals have to survive. So the next time you catch a glimpse of something that looks like an armored car with legs, rest easy knowing you did see what you think you did.
When rough fish become too numerous, they can displace more desirable sportfish in reservoirs. Commercial fishermen are sometimes called in to help remedy the problem.
ling rough fish populations are not always available. Water-level management is an effective tool, but it is not feasible on many of our lakes. Kansas City Power and Light owns La Cygne Reservoir and uses water from the lake to cool turbines. The department leases the lake and manages it for public fishing. Dropping the lake level for fisheries management would reduce the electric plant's operating ability. At Melvern Reservoir, water-level manipulation isn't an option, either.

One management tool that has been used to reduce rough fish populations is commercial fishing. In 1978, the department authorized the removal of rough fish by commercial means at Lovewell Reservoir in Jewell County. At the time the reservoir had four strong classes of buffalo that were competing with small sportfish. The growth of walleye and white bass was found to be slower than at other reservoirs. The gizzard shad population (the most important forage species for sportfish) was dominated by fish too large to be effective forage for most sportfish.

After seven months of commercial fishing at Lovewell, approximately 435,000 pounds of rough fish were removed, about 150 pounds per acre. Follow-up studies showed strong year-classes of sportfish, which showed improved growth rates. The lake's biologist considered the effort a success.

Jirak and I compared La Cygne and Melvern reservoirs to Lovewell and believed they shared some of the same problems. In 1993, we proposed to bring commercial fishing to these lakes.

In 1994, a commercial fishing operation was contracted to remove only rough fish from Melvern and La Cygne. The conditions of the contract specified a fishing season, size and types of nets allowed, and listed carp, big and smallmouth buffalo, gar, quillback, drum and river carpsucker as legal species. The contract also required bonding and proof of insurance and detailed records of all fish caught. A royalty of 2 to 5 cents per pound of buffalo sold would be returned to the department. The commercial fishermen fished Melvern and John Redmond reservoirs until freeze up, then moved to La Cygne, since the warm-water discharge from the electric plant keeps it open through the winter. The contractors would be busy from October 30 through May 15.

Commercial fishermen are a tough breed, working in all kinds of weather, from the few pleasant winter days to those below zero. The equipment includes custom-
built, 24-foot, flat-bottomed, aluminum boats, powered by moderate-sized outboards. Large plastic containers in the boats are filled with thousands of yards of different-sized gill nets. They must also have a lot of determination and good knowledge of rough fish habits.

In the fall and winter of 1994-1995, after 24 weeks of fishing at Melvern, John Redmond and La Cygne reservoirs, they harvested a total of 211,235 pounds of fish. Records show that 87 percent of the fish harvested were bigmouth buffalo, followed by 13 percent smallmouth buffalo and 3 percent carp. All fish were sold at markets for human consumption. The royalties returned to the department from the sale of buffalo totaled $11,500.

Generally, fish were shipped to Kansas City every other day, averaging about 2,000 to 3,000 pounds. However, on Jan. 19, 1996, I was at the Linn County Park Marina at La Cygne to witness the loading of the first big shipment — 5 1/2 tons of fish. I smiled ear to ear as I watched a boat load of buffalo weighed and loaded onto a semi-tractor trailer. The commercial crew worked efficiently and quickly. During the procedure, several anglers gathered to watch and ask questions. Here is a summary of the questions I answered that day:

Does the department give the fish away? We receive 2 to 5 cents per pound of buffalo sold. The value of other rough fish is so low it barely pays for the handling and shipping. However, the contract requires that they remove all rough fish from the site.

What happens to the sportfish caught? Sportfish caught in the nets are immediately released. A record of all fish caught, including size, species, location caught and nets used is kept and given to the biologist each week. A review of these records helps the biologist to dictate areas to fish and type and net size to use to avoid catching too many sportfish. The fishermen profit only from rough fish caught. Time spent removing and releasing sportfish is money out of their pocket, so areas with high concentrations of sportfish are avoided. The nets used are large enough to allow many sportfish to swim through unharmed.

When will we see an improvement in fishing? At least three years. It will be that long before they remove enough rough fish to make a noticeable difference. Restructuring of the fish populations takes time.

How long will the commercial fishermen be at La Cygne? The season is Oct. 30 through May 15. This is generally the slowest time for sportfish fishing, and the cold water decreases sportfish mortality. And lack of sportfish anglers reduces potential conflicts between them and the commercial fishermen. Typically, the contractors will be at La Cygne during the coldest part of the year, netting there for about 30 days.

Is it okay if we watch the fishermen run their nets? Of course. We want this project to be visible. It's exciting to see the large gar and buffalo hoisted from the nets, and this may

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District fisheries biologist Don George checks one of the holding nets. It may take several years for the sportfish to respond to the reduction in rough fish numbers.
Bass After Dark

by Mike Miller

editor, Pratt

photos by Mike Blair

Hot summer days discourage bass fishing, but a trip after dark can be as exciting as it is comfortable. Topwater nightfishing is guaranteed to jumpstart your fishing fever.

Bloop, bloop, bloop, bloop, bloop, bloop ... kerplunk, splash ... swish ... hisssssssph. "Look out!"

If you recognize the sounds described above, then you've fished topwater at night for bass. The sounds are universal; the gurgling of a topwater lure, the violent splash of a strike in the darkness, the whip of the rod setting the hook, and the hiss of a lure that missed its mark sailing back toward the rattled angler.

Nightfishing for bass can be as exciting as it is frustrating. It's difficult maneuvering along a brushy pond bank in the darkness. It's easy to catch a weed on the backcast, and it's nearly impossible to get the resulting backlash untangled. You listen after each cast, hoping the lure splashes down. If it doesn't, you've snagged some unseen overhang. But when the inky water explodes around your lure, the adrenaline rush makes it worth the effort.

Nightfishing probably came about by accident, since most of us light-dependent human anglers are literally lost in the dark. But summertime fishing usually is best just...
at sunset or sunrise. I imagine, many years ago, some determined anglers probably stayed late or went extra early and discovered that bass will readily hit lures in the black of night.

It’s difficult for us to understand how a bass relates to its underwater world, but we do know that their eyes pick up available light much better than ours. I’m sure you’ve caught bass in water so murky that you couldn’t imagine anything seeing a lure. And bass have a lateral line running lengthwise along each side of the body that picks up vibrations in the water. The blade of a spinner bait, for example, creates vibrations that travel through the water like sound waves through air. Rattles in crankbaits also produce sound and vibration bass can detect.

I was shocked when I first discovered bass could find a lure in total darkness. I’d night fished plenty, but I’d always relied on noisy surface lures. On a whim one night, when the bass had tired of my black Jitterbug, I tied on a single-blade spinnerbait. On about the third or fourth cast, my rod was nearly jerked from my hands; not a feeble strike of a fish stabbing at a lure it can’t see. I really thought I had tied into a wall-hanger, but the fish turned out be fairly average for the lake — maybe three pounds.

Then I listened to stories by an old fishing buddy about nightfishing with a black jig-n-pig on Table Rock Lake in Missouri. Fish really can see, or somehow find with uncanny accuracy, lures in the night.

Hot, midsummer dog days make nightfishing so attractive. While largemouth bass are fairly active in warm water, when the water temperature reaches the 80s and 90s, just about everything slows down. On clear-water reservoirs, heavy boat traffic can make nightfishing a necessity. When the sun sets, seemingly dead water can suddenly come alive with insects, baitfish, frogs and feeding fish. And just after sunset is usually a prime time. I’ve often fished ponds at this time and enjoyed 30 minutes to an hour of great action, but it usually slows an hour after dark. Dedicated nightfishermen will tell you, however, that it will probably get better sometime after midnight. And it will usually get good again an hour or two before sunrise.

Full moon or new moon? I’ve been told both are best. Moon phases are probably secondary influences on activity, however, a full moon does give a lot more light for fishing. I believe fishing will be best when other conditions are favorable, such as a stable or high barometer and stable weather. If you’re like me, you fish when you can and especially when the wind finally lays down.

Topwater is the most fun way to fish, but it may not be the most effective. I always throw either a...
A few favorite night-fishing lures are illustrated above. Dark-colored lures make a good silhouette against the night sky and may be easier for bass to see.

black Jitterbug, Zara Spook, or buzz bait to see what I can raise. I carry at least two rigged fishing poles, even when walking a pond bank. One is rigged topwater, and the other with a spinner bait or jig-n-pig. If they’re hitting topwater, I’ll stay with it. If I don’t raise any fish, or if I get short strikes, I’ll throw the spinner bait. A spinner bait covers more water, is fairly weedless and is easier to fish in the dark than a jig-n-pig. But if you have the patience, bigger fish are usually caught on the jig.

Having two rods also lets me switch to the spinnerbait quickly after a fish misses a topwater strike. I cast it right past the spot where strike occurred, and many times the fish will hit.

Start fishing the shallows. When the sun sets and the surface temperature cools, bass will cruise the shallows, especially along weed bed edges or shorelines. In weedy ponds, a weedless topwater bait, such as some of the rubber or plastic frogs with upturned hooks, can be cast right on top of weed mats and worked snagfree. Strikes are explosive, and often the fish will miss several times before finally eating the bait because of the weeds. It takes a great deal of discipline, but always wait to feel the fish before setting the hook with these soft baits. Do as I say, not as I do. I’ve had more than my share of topwater baits sailing back at me when I set the hook when I heard the splash.

In addition to those lures listed above, other good nightfishing baits include prop baits, floating minnow plugs and poppers. I generally go with darker colors since they make a good silhouette against the night sky. Certain baits can be more effective, depending on water conditions and the fishes’ mood. When fish are less aggressive, a more finesse type bait such as the floating minnow or Zara Spook may work best. The finesse baits make less noise and are less apt to scare fish.

It’s a good idea to take along a small pen light for finding your way along the shoreline or tying on lures (or untangling backlashes that can occur when casting in the dark). Be sure to turn away from the water when shining the light to prevent spooking any nearby fish. Bug spray is also a must, as mosquitoes can be murderous after dark. And be extra careful when freeing snagged lures. A lure that’s just snapped free from a snag and is zinging back at you in the dark can be dangerous.

Beat the heat this summer and fish after dark. You’ll never forget that first vicious strike in the dark, and nighttime might be your best chance of catching a trophy-sized bass. And when you find one of those magic nights when the fish are tearing up your topwater plug, invest in fishing’s future and practice catch and release.

Peak action may occur just after sunset, then again after midnight and just before sunrise.
Fishing Fun

photos by Mike Blair

A fishing clinic organized by Pratt Fish Hatchery staff and the Pratt Summer Recreation Program introduced a busload of happy youngsters to the joy of fishing.

Kevin Becker, hatchery employee and clinic organizer, helps an excited youngster.
Green sunfish in the rip rap are eager to bite and although small, they satisfy the young anglers.
You can never have too much help at a fishing clinic. Eric Wickman helps above, and Jim Hays lends a hand below.
WHERE ARE SPARROWS?

Editor:
What happened to my English (house) sparrows? As always, I have fed the wild birds in winter and have the usual run of birds. Only this winter, I have had a flock of goldfinches, which I never had before. Also, I’ve had house finches (rose-breast), which I never had before although Logan has them.

But what happened to my English sparrows? I always have them by the bushel, which is okay. They eat bugs, too.

This winter, they began to die. I would find two or three in the yard in the morning. Also, I would see sick ones at the feeder. There are few at the feeder now, but there should be 20 or more.

They were fed the same as always — sunflower and milo. No other birds died.

Also, what became of the horned lark? My pasture used to have lots of them. Last summer, there was not a one to be seen. I blame chemicals. I am a retired farmer but never used them. What happened to my sparrows?

Summer T. Suhr
Logan

Dear Mr. Suhr,
Thanks for your concern for songbirds. Without knowing all the facts, I attempt to address some of your questions.

It is possible that your sick house sparrows have succumbed to a disease currently affecting mainly house finches. In the past two years, reports of a disease affecting house finches, called *Mycoplasma gallisepticum*, have spread across the country, including Kansas. (See *Kansas Wildlife and Parks*, M/A 1996, Page 41.) We have heard no reports of the disease affecting house sparrows, but it may be possible considering how closely they compete.

If you have noticed a decrease in the number of house sparrows and an increase in the number of house finches, you are not alone. The house finch has been spreading across the U.S. for several years, out-competing the house sparrow. If this is the case, consider yourself lucky. The house sparrow is an exotic species from Europe. Originally stocked in Kansas in the 1860s, it was thought that the house sparrow would rid the country of insects. However, because they eat very few insects, this turned out to be a mistake. Its habits actually were quite destructive to native species.

House finches, on the other hand, are native birds. They also have a beautiful canary-like song that will brighten anyone’s day. If you have goldfinches, be thankful for them, as well. They, too, are native species that brighten up the feeder.

I can’t say why you have noticed a decline in horned larks. Chemicals may be an issue, but I don’t know.

If you see more sick birds, please contact the Fisheries and Wildlife Division of the Kansas Department of Wildlife and Parks in the Pratt Office.

—Shoup

VERSATILE COTTONWOOD

Editor:
I enjoyed Gary Naughton’s article, “The Cottonwood: Prairie Pioneer” (*Kansas Wildlife and Parks*, May/June 1996, Page 2). I have visited the eastern champ near Ozawkie and was awed by its size.

I don’t recall that Mr. Naughton mentioned that the eastern cottonwood is the official state tree of Kansas. I was one of the grade school children voting for it in the 1930s. A big cottonwood grew on the school grounds in front of our school building at Ogden back then.

Cottonwood trees have provided me lots of morel and oyster mushrooms. Barkless cottonwood trees get my attention in the spring because the fallen bark, when covered with soil, provides places with abundant morel mushrooms. Earlier in May, my daughter Sheryl Hungerford found she had to move cottonwood leaves to find morels under them. None were showing above the leaves.

Downed cottonwoods, with bark intact, can produce many pounds of oyster mushrooms following rains. I’ve collected oyster mushrooms in the spring, summer, fall, and winter from my favorite cottonwoods over and over again. In fact, I collected six pounds of oyster mushrooms from two such downed cottonwoods today [May 15]. That is what prompted this letter about your interesting story.

Thanks for a great magazine.

Carl F. Crumpton
Topeka

Dear Mr. Crumpton:
Thank you, for your letter and your tips. My mouth is watering now that you have brought up oyster mushrooms.

—Shoup

COOL KESTRELS

Editor:
I have been meaning to write for some time now on the fine article Dan Lekie had about kestrels in the November/December 1995 issue of *Kansas Wildlife and Parks* (Page 16). I learned quite a bit from the article but feel I have a great deal more to understand about these fascinating birds.

I erected four kestrel boxes on my property in 1994 and have seen evidence of some use each year. This year, I believe two of my boxes are occupied. I would like to direct a more extensive box program in my area, especially if we could use it as an educational tool with the local schools.

I was impressed by the cooperation you received from the utility companies, as well as the Kansas Department of Transportation. The sentence about the box kits from the habitat center also caught my attention.

In the past three years, I have been erecting Canada goose nesting structures...
here in Doniphan County and have almost reached my goal of 50. I would now like to turn my attention to erecting the same number of wood duck boxes.

Please give my thanks to Mr. Blair for the excellent photos and Mr. Teasley for the beautiful illustration.

Dave Weber
Wathena

TREE FROGS, INDEED!

Editor:

For several years, my wife and a couple of friends keep talking about tree frogs. I've never heard of such a thing, but my friends have good ears. I don't. They hear them but never see them. They can't describe what they look like. Because you are the wildlife authority, I pose this question: Is there such a thing as tree frogs? If so, what do they look like? Do you have a picture of one?

Another strange thing, my daughter and her family live right on the northwest edge of Whitewater. Occasionally, a mallard drake and hen will fly into a tall cottonwood tree and sit on a limb for a little while. Is this natural? They have a real small water hole under the tree, but the ducks do not use it. They have rigged up a pump and have water running over the rocks, rather nice. Now they hear a bullfrog and think it is staying there. There are a lot of rocks that a frog could hide in. About 1,000 feet to the west is a drainage slough that probably has a couple of water holes. I thought it rather unusual, but I guess it is possible that bullfrogs migrate around, especially since we have had extremely dry weather and water holes are scarce.

We feed a lot of thistle seed to finches. Right now we have more than usual. At one dollar a pound, they go through a lot of dollars. What bothers me is how much they waste. Under the feeders there is a lot of thistle seed. Some seems to be shelled, but much is not. What kind of a feeder is available that would catch the wasted seed?

I enjoy your articles on wildflowers and birds. My fishing is limited, and I don't have fancy equipment. I probably am still a cane pole, line, bobber, sinker, and hook fisherman, except you don't see cane poles anymore. I recall as a kid, 65 years ago, catching bullheads with a cane pole. I might get one 6 or 7 inches long and carry it home. My mother would clean it and fry it, probably had two or three bites, but she wasn't going to let me know it wasn't a prize catch, bless her heart.

I think Kansas Wildlife and Parks magazine is one of the best, if not the best, magazine in print. I will be a subscriber as long as I can see.

Rollan K. Eberhard
Whitewater

Dear Mr. Eberhard:

Indeed, there are tree frogs in our state. (See the accompanying illustration.) They are of the family Hylidae, and in Kansas include the northern cricket frog, Cope's gray treefrog, eastern gray treefrog, eastern gray treefrog, spotted chorus frog, spring peeper, boreal chorus frog, western chorus frog, and Strecker's chorus frog. They are tiny amphibians, ranging from 5/8 to 2 1/4 inches long. For a good look at these species, I recommend Amphibians and Reptiles in Kansas, by Joseph T. Collins. It should be available at bookstores in Wichita, or through the University Press of Kansas.

I have never heard of mallards perching in trees, and neither have any of the waterfowl experts I have talked to. That doesn't mean it couldn't happen, but it is likely that what your daughter saw were wood ducks.

Bullfrogs might move from one body of water to another if they were desperate, but they are generally restricted to permanent water.

Specially-made trays may be purchased to catch thistle seed spilled from a tube feeder, and other feeders are made to help eliminate the problem of thistle seed scattering. However, juncos and other birds will pick the spilled seed up, so there should really not be too much waste. As far as cost is concerned, I'd recommend a feeder for black-oil sunflower seed. The only disadvantage of this seed is that it attracts grackles, if that is a problem for you.

As far as cane poles are concerned, they can be purchased in Wichita at fishing supply stores and large department stores that carry fishing supplies.

Thanks for your letter. I hope this answers your questions.

—Shoup

Cope’s gray treefrog
DOWN IN THE DUMPS

In February 1995, a couple of concerned citizens saw a man dumping dead wildlife and wildlife parts in Kansas City. They got a description of his vehicle and noticed that it had no rear license plate. They drove to the dump site, met the witnesses’ description. The dump site contained trash barrel that matched the witnesses’ description. The dump site had contained trash with the suspect’s name on it, but when I interviewed him, he said he hadn’t dumped the stuff and hadn’t driven the vehicle. (With suspended driver’s license, improper vehicle registration, and the potential wildlife violations involved, what else would he say?) However, he finally admitted that he had dumped the trash with his name on it but not the wildlife.

Inspection of the hen turkeys revealed that the breast meat had been sliced from the bone. X-rays would later show that the birds had been killed with a shotgun. Turkeys without beards can be taken only in the fall season when the Neosho County Sheriff’s Department was dispatched to a burglary in progress in the southwest corner of the county, near Thayer. I was eleven miles east of there. From the radio traffic, I determined that most of their deputies were busy, and those who could respond were coming from the north. As I approached the location, I heard the suspect vehicle description and tag number being broadcast. About seven minutes later, I saw the vehicle, a blue Cadillac, and began to follow it while radioing our location and route of travel to sheriff’s deputies and Kansas Highway Patrol officers.

After following the suspect vehicle to St. Paul, the Highway Patrol, Erie Police, and I tried unsuccessfully to stop the vehicle, and a chase ensued. The suspects traveled north into Allen County just west of Savonburg and attempted to hide behind a mobile home, where they were apprehended without incident.

The vehicle they were driving was stolen from Ponca City, Oklahoma, and both suspects were wanted for escape from prison in Arkansas. Numerous guns, knives, and swords were among the items found in the initial search of the car. The arrest solved three robberies and two stolen vehicle cases for Oklahoma and Kansas.

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GOOSE BUSTERS BUSTED

On Saturday, Jan. 13, three men in Greenwood County were hunting ducks and geese on a small farm pond as we (COs Bob Funke and Everett Wilnard) watched and saw flock after flock decoyed and shot at. When a mallard was shot at five minutes after sunset, we decided to put a stop to the “hunt.”

As he stood knee-deep in the pond with mallard in hand, one man said he was coyote hunting. The trio was charged with possession of an overbag of Canada geese, taking ducks during a closed season, failure to tag geese, hunting waterfowl with lead shot, shotguns not plugged, and hunting after sunset. One man was charged with hunting dark geese in a permit area without a permit. Their shotguns were seized. Two poachers were charged in federal court and paid a total of $2,450 in fines and court costs. The third was charged in Greenwood County Court and paid $4,210 in fines and court costs.

—CO Bob Funke, Fredonia, and CO Everett Wilnerd, Howard

THE CHASE IS ON

On April 18, I (CO Keith Rather) was en route to perform a gamebreeder inspection when I heard the Neosho County Sheriff’s Department being dispatched to a burglary in progress in the southwest corner of the county, near Thayer. I was seven miles east of there. From the radio traffic, I determined that most of their deputies were busy, and those who could respond were coming from the north. As I started toward the location, I heard the suspect vehicle description and tag number being broadcast. About seven minutes later, I saw the vehicle, a blue Cadillac, and began to follow it while radioing our location and route of travel to sheriff’s deputies and Kansas Highway Patrol officers.

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—Keith Rather, conservation officer, Chanute
**DDT** NOT BANNED

One of the best documented examples of how a substance can enter the food chain and become concentrated is DDT. Wholesale use of DDT resulted in pollution of rivers, and the absorption of tiny amounts by small fish. Instead of being excreted, DDT tends to lodge in the fatty tissues of living organisms. As small fish are eaten by big fish, which in turn are eaten by birds (and people), so the ratio of DDT to body weight increases.

Although DDT was prohibited for use within the United States as long ago as 1972, U.S. companies still manufacture more than 18 million kilograms a year for export, largely to the Third World. Ignorance in the Third World of the dangers involved with the use of persistent pesticides such as DDT is a major problem. A sample of rural workers in Central America shows that they have 11 times as much DDT in their bodies as the average American citizen.

—Gaia: An Atlas of Planet Management

**FARM BILL ADDS WHIP**

The 1996 federal Farm Bill contains several conservation programs. Although many details have yet to be worked out, two new conservation provisions should be of interest to landowners. The first is a Wildlife Habitat Improvement Program (WHIP) similar to the one Kansas had for several years. For the first time, the Natural Resource Conservation Service (NRCS) will administer a program specifically designed to help farmers develop wildlife habitat on their land. Over the next seven years, $50 million dollars has been dedicated to the program.

The other program will allow landowners to sell floodplain easements to the government under the Emergency Watershed Protection Program. The beauty of this program is that it is approved for many land use types in a floodplain, giving landowners the chance to enroll in a conservation program land that previously could not qualify under other wetland programs.

In the coming months, rules and regulations for these programs should be worked out. For more information, contact your local NRCS office. —Shoup

**ATRAZINE ALERT**

Atrazine is a triazine-class herbicide used extensively in the production of corn and grain sorghum. Last year during the months of May, June, and July, daily mean triazine concentrations in streams of the Delaware River Basin of northeast Kansas commonly exceeded the U.S. Environmental Protection Agency’s Maximum Contaminant Level (MCL) of 3.0 micrograms per liter for atrazine.

**TEAMING WITH WILDLIFE**

There are more than 800 groups nationwide in support of Teaming With Wildlife (also known as the Fish Wildlife Diversity Funding Initiative), a nationwide campaign for legislation creating an excise tax on outdoor gear other than hunting and fishing equipment. Funds raised would help states develop nongame programs.

Seven governors have sent letters of endorsement for the effort. Bass Pro Shops and AGCO, a bird seed manufacturer, are the most notable and recent corporate sponsors. A major national endorsement has just come from the Sierra Club. It’s enlightening that so many prominent organizations and companies are starting to become active in supporting TWW.

However, we should also be aware of the “doubting Thomases” as well. In any proactive and positive approach to such a conservation effort, there will be some who will not get on board until the very last minute. It happened 60 years ago, as well, when sportsmen were desperately trying to sell the Wildlife Restoration Act.

All points of view need to be considered in the effort to solve long-term funding needs for all wildlife species. It’s about time for the rest of the wildlife-oriented public — other than hunters and anglers — to provide major funding support for wildlife conservation and education programs. The department will continue to work with all groups as we look toward introduction of TWW legislation this summer.

The best way to counter opposition is to emphasize the 800-plus organizations in the coalition showing their support, and to give special recognition to Bass Pro Shops and AGCO for their foresight and courage in leading the corporate effort.

It happened in the 1930s, then again in the 1950s, when a portion of outdoor users, hunters and then fishermen, decided it was time to ante up for wildlife. Let it happen again with other outdoor users, for the wildlife that everyone enjoys. Please contact the department if you have any questions or need any promotional materials. And, by all means, if you have problems with this concept at all, please give us a chance to visit. Your understanding and support of Teaming With Wildlife is most important.

—Ken Brunson, nongame program coordinator, Pratt

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Daily mean concentrations at or above 20 micrograms per liter were common during this period. However, daily mean concentrations greater than the MCL in streams were rare at other times of the year.

Additional data indicate that atrazine concentrations in Perry Reservoir remained above the MCL for much of 1995.

The occurrence and distribution of atrazine in surface water within the Delaware River Basin are described in two fact sheets released by the U.S. Geological Survey. Copies of these fact reports are available for inspection at Lawrence, KS, the Books and Open-File Section, U.S. Geological Survey, Box 25425, Bldg. 810, Federal Center, Denver, CO 80225.

—U.S. Department of Interior release

Trash THE RIVER

Tom Norman of the Finney Game Refuge did not like what he saw along his beloved Arkansas River near Garden City. Area residents were trying to combat the sloughing banks created by recent years of flow with a variety of “creative” techniques. Asphalt, concrete rubble, old refrigerators and washing machines, car bodies, even marble gravestones were being used in a feeble attempt to fight the forces of the river.

Tom contacted Wildlife and Parks’ (KDWP) Environmental Services Section for technical advice, as well as information on the local parties responsible for the unsightly and illegal filling. In early April, a meeting was held in Garden City with the U.S. Department of Agriculture’s Natural Resource Conservation Service, the Finney County Engineer, and KDWP.

Progress is now being made to use innovative bank stabilization techniques such as willow posts and stakes, point deflectors or jetties, and other more attractive and environmentally-friendly measures.

—Larry Zuckerman, aquatic ecologist, Pratt

NO FLOW, NO CRITTERS

The Nature Conservancy recently published the most comprehensive report to date on the conservation status of native U.S. species. The most discouraging news was about organisms that spend all or some of their lives in the water. Percentages at risk in four major groups were freshwater mussels, 67.1 percent; crayfish, 64.8 percent; amphibians, 37.9 percent; and freshwater fishes, 37.2 percent. The culprit in almost every case is habitat alteration and degradation.

One contributing factor is stream pollution ... Ninety-five percent of our rivers, steams, and lakes do not meet Kansas’ surface water quality standards.

Habitat alteration may be the result of well-meaning projects with unanticipated consequences. In Kansas, tremendous efforts have been made to reduce the flooding of bottomland crops and reduce soil erosion. Tens of thousands of miles of terraces hold rainfall on the land, as do crop resident management and 100,000 private farm ponds. Irrigation in the stream valleys pulls surface stream flow underground.

The combined result of these measures may be detected in a report by the Kansas Department of Wildlife and Parks that indicates that 1,000 miles of previously fishable streams are now “dewatered.” It is not surprising that nearly two-thirds of the species on the Kansas List of Threatened, Endangered, or Species in Need of Conservation spend all or some of their lives in aquatic habitats.

The Nature Conservancy routinely engages in many cooperative efforts with various public land management agencies. Recognition of disturbing declines in the number of our aquatic creatures, however, has frequently found the Conservancy in a spirited debate with agencies as to the proper management of our water resources.

In our state, much of that debate has centered on the future direction of dam construction. As of January 1995, 725 dams had been constructed with federal funds, and an additional 21 were planned. The State of Kansas has partially funded 390 dams with long-term plans calling for 2,000 more to be completed with state and local funds.

The intended purpose of the dam construction projects is flood control and allowing more intensified use of the floodplain. One of the important lessons of the widespread 1993 Midwest flooding is that no number of dams or levees will hold back all floods. Therefore, we should make every effort to reduce floodplain development that won’t stop inevitable major floods.

If that lesson is valid on the Missouri River, it is equally valid on Kansas waterways. Furthermore, it is not unheard of for the cost of a Kansas dam to equal or exceed the value of the floodplain land it purports to protect.

All of these works of “improvement” need to be assessed for their cumulative impacts over the past 50 years. The Topeka shiner and the Neosho madtom are two small native fish that have grabbed the headlines when it comes to endangered species and our deteriorating aquatic resources, but it seems obvious that the potential problems are far reaching. Evidence continues to mount that the law of diminishing returns is beginning to assert itself as we attempt to re-plumb our state.

—Alan Polnom, state director, The Nature Conservancy

FISHES’ RIGHTS ADVOCATES

The people who brought you blood-splattered furs and liberated lobsters have trained their sights on a new target — the fishing rod and the person behind it. The animal rights group People for the Ethical Treatment of Animals (PETA) this summer will hit Cape May, N.J., and other coastal spots, lakes, and fishing holes around the country, beating waters for a ban on fishing.

PETA fish campaign coordinator Tracy Reiman promised that protestors will maneuver their boats among fishing craft and throw rocks across waters where anglers are fishing.

—Denver Post
TROPHY BLUEGILL

As the summer begins to heat up, fishing tends to cool down. Many species of fish are not as active as they are in spring and fall. However, bluegill don't seem to mind the warm water, and heat up, fishing tends to be fast and furious this time of year. Ounce for ounce, they may be one of the scrappiest fighters in the pond, and they taste good, too.

Excellent bluegill fishing can be found on most any body of water in Kansas. Farm ponds and state and community lakes are likely the best spots. Bluegill don't receive the fishing pressure of other species and as a result are fairly easy to catch.

A 5-foot ultralight rod and small spinning reel with 4-pound test line is the ideal combination. Lighter line can be used, but largemouth bass or channel catfish are bonus catches that may be too much for lighter line.

Tackle for bluegill is simple. Because bluegill have small mouths, number 8 or 10 hooks are recommended. A small split shot is used about 1 foot above the hook, and a small round or pencil-type bobber may be placed another foot above the weight.

Bait for bluegill is found by looking under rocks, rotting logs, or even piles of old cow manure for worms and grubs. Grasshoppers, crickets, meal and wax worms, and even maggots work well, as do small pieces of nightcrawler.

For those who prefer to cast, artificial lures should be 1/16 ounce to 1/64 ounce jigs or spinners. Colors aren't critical, but chartreuse, black, and green are usually productive. If lures have treble hooks, two of the hook shanks can be cut off, making hook removal easier. Small needle-nose pliers will come in handy for this.

Some anglers like to add a twist to their bluegill quest and use fly-fishing equipment. Small flies that resemble natural food often produce fast action.

Bluegill are prolific, and hotspots can yield many trophy-sized fish. Anglers should remember to keep only what they can use and return other fish immediately to the water to catch another day.

-Murrell

KDWP, WESTERN RESOURCES AID CITY LAKES

Western Resources and the Kansas Department of Wildlife and Parks (KDWP) have pooled their resources to solve a common problem at two southeast Kansas lakes -- degraded water quality and fish habitat at Moline and Olpe city lakes.

Taking advantage of winter drought, the water levels were further lowered, and five earthen piers were pushed up from bottom sediment at each lake. Rip-rap boulders were then hauled in and positioned over the side slopes, and gravel was spread on the tops of the piers to reduce erosion. The timeliness of recent rainfall should enhance the efforts as the lakes fill back up.

Two common problems had plagued Moline and Olpe city lakes. First, large clay deposits along the shallow mudflats were continually stirred by winds. This reduced water quality and made it more difficult for sight-feeding fish such as largemouth bass and crappie to hunt. The second problem was that the gradual shoreline slope limited bank angler access to deep water.

The problems were clear. However, solving them required resources that neither city had. Enter Western Resources with financial grants the cities used to meet the minimum costshare to qualify for a Community Lake Assistance Program (CLAP) grant from Wildlife and Parks. This departmentally-administered program is funded through hunting and fishing license sales, as well as federal excise tax on aquatic sporting goods.

When the bulldozers, backhoes, and dump trucks had finished giving the shorelines a make-over, what remained was an angler's delight. The earthen and rip-rapped piers -- and deeper water around them -- now reach 100 feet to 200 feet into the lake and should abate the tenacious wind-induced waves.

With the rip-rap on the piers providing the rocky habitat and brush piles added to the otherwise featureless, mud-bottomed lakes, anglers should now find Moline and Olpe city lakes irresistible attractions.

-Carson Cox, fisheries biologist, Emporia

NEW STATE RECORD WALLEYE

Dustin Ritter, Hoisington, with the new state record walleye - 13.16 pounds caught in Wilson Reservoir April 17
Wise as Serpents

by Mark Shoup

Be ye therefore wise as serpents
— Matthew 10:16

Independence Day always reminds me of my youth, growing up in a small town and the independence that environment provided. Of course, that sense of freedom was always magnified by summer, when school was out, the days were longer, and warm weather meant fewer clothes and more opportunity to be outdoors. Outdoors was where I wanted to be most the time. As soon as I was old enough to venture away from home by myself, I was down at the crick (the Pawnee River, as it is formally known). It was there that I had my first encounter with a snake.

Like most kids, my knowledge of snakes was a volume of misinformed paranoia handed down from several generations of adults who felt that the only good snake was a dead snake. Like everyone else, I knew for a fact that every river and marsh in Kansas was certain to have its share of “water moccasins,” our name for the highly-venomous cottonmouth. I did not know, had no way of knowing, that cottonmouths cannot survive the cold Kansas winter and that none had ever been spotted in Kansas.

So when I slipped through the trees to my favorite fishing hole, what should I discover basking on a large rock but a water moccasin? The vile creature hadn’t seen me approach, and a large cottonwood stood on the bank above the snake, close enough to the rock that I could sneak right up. And that is what I did, toting the largest rock I could carry. When I reached the tree, I leaned around it and dropped the rock smack on the that water moccasin, killed him deader ‘n a mackerel with one blow. I couldn’t believe it.

I can still remember proudly carrying that snake home, draped across my tackle box. My dad met me in the front yard, and I asked him if it was a water moccasin.

“Could be,” he said. “I’m not sure.”

Mom just poked her head out the front door, refusing to come out and examine my trophy, and told me to “get that thing out of here this minute.” The snake was soon in the garbage.

Upon reflection, I now realize that my “trophy” was probably a northern water snake, common in our parts but hardly poisonous. Today, I would no more consider killing a snake than I would a cardinal. Other than animals we eat, few are more beneficial to humans than snakes.

None of this is to disparage my parents, or any others, who for generations have taught their children to fear snakes. It is natural to protect your children and, I think, somewhat instinctive to fear snakes. When my oldest boy was about four, he was following about 15 feet behind me through some tall grass in the Red Hills when he began screaming bloody murder. I wheeled and ran for him, my first thought being “RATTLESNAKE!” As I snatched him up and kept running, I realized that it wasn’t a rattlesnake that had caused the commotion but a nest of yellow jackets. He had been stung eight or nine times.

In fact, insect bites in North America account for many times the deaths attributed to snakes. Scorpions alone kill more people in Mexico than all snakes combined. Of the 38 species of snakes in Kansas, only five are poisonous. Of these, the timber rattlesnake is extremely rare, and only two cottonmouths have ever been seen in Kansas, both in 1991 in the southeastern corner of the state. More importantly, only one snakebite fatality has occurred in Kansas in the past 46 years.

Still, you may ask, most snakes may not be dangerous, but what good are they? Consider this: there are 22 species of mice and rats in Kansas; many breed throughout the year; and each litter is weaned and out of the nest in about three weeks. Without the presence of snakes, rats and mice would literally overrun the countryside.

Mice and rats are not the only pests that snakes control. The state’s most common snake, the bull snake, loves pocket gophers. In a joint 1926 study, researchers from the University of Wisconsin and Ottawa (Kansas) University estimated that alfalfa farmers lost $2.50 per acre in fields invaded by pocket gophers. And that’s 1926 money. In a single season, a one bull snake can eat all the pocket gophers on an acre and one-half. In addition, an adult bull snake may consume dozens of mice and rats. Of course, the bull snake is only one species. Many other snakes are heavy-duty rodent eaters, and even garter snakes will devour small mice, as well as insects.

Snakes have other benefits to mankind, as well. Recent research at the University of Kansas on the shed skins of black rat snakes has yielded an essential ingredient in nicotine patches. As environmental education tools for children, snakes are hard to beat. Even those children who are afraid of snakes are fascinated, and with some gentle persuasion, most kids quickly overcome their fear. We’ve kept snakes at our home for a few weeks at a time, and my boys love them.

Since Adam and Eve got crossways with God because of a serpent, and the first caveman was rousted from his woolly mammoth bedroll by a bull snake, people have been afraid of snakes. Still, Matthew appreciated snakes. Original sin may have come from eating of the tree of knowledge of good and evil, but I still think it’s a sin to kill a snake for no good reason. If you’re going to eat it, that’s another matter, but for most folks, an affinity for snake meat would be a taste they’d rather not acquire.
SEASON OPENER

Two shadowy figures hunkered in a sea of yellow weeds. The third companion sat beside, his eyes turned skyward, waiting for the tell-tale click of a safety. In came the T from the weeds that from cover. Dove season was darted in their approach. As they dipped and them, each firing twice. moments earlier had hid bird tumbled from the sky. A soon be gone, overtaken by facturers look forward to dream of. Shotshell crisp, clear autumn one of the most popular fall

Dove hunting is likely one of the most popular fall hunts for several reasons. It is the first major season signalling that summer will soon be gone, overtaken by crisp, clear autumn mornings and evenings hunters dream of. Shotshell manufacturers look forward to this season more than any other, and for good reason. More shells are fired at this bird than any other - an average of five to seven for each bird taken.

Doves can be hunted in a variety of ways, each with a different appeal and as individualized as any hunter's preference. One of the most popular methods is to hunt around waterholes such as farm ponds and low-water crossings. Irrigation canals or standing water in agricultural fields can also be productive. Doves typically water in the morning and evening, allowing the hunter options before or after work.

The advantage to hunting around waterholes is that shots are usually close and the birds have slowed their flights for landing. However, waterholes must have exposed shoreline. Doves won't use ponds with high vegetation extending to the water's edge. Many ponds are low after a dry summer, offering ideal wingshooting.

Another popular method involves hunting doves in crop fields. Doves feed on a number of grains and seeds but prefer sunflowers and wheat. A recently burned or worked wheat field or one with standing stubble can be a good bet, especially for large groups. The action may not be as fast or intense as at watering holes, but the duration of the hunt can be long if doves filter in and out to feed throughout mid-morning and early evening.

The last chance of the day to catch a shot at doves is when they fly to roost. Doves often roost in shelter-belts near crop fields, and these areas can offer such fast shooting that you hardly have time to reload and locate downed birds. The disadvantage is that doves often linger near water or food until after shooting hours.

The biggest adversary of dove hunters is cold weather. A late summer cold snap, even for a few days, can send doves migrating south. The good news, if this happens, is that other birds arrive from the north. Still, the hunt never seems to be quite as good once migration begins.

Doves are the perfect game to introduce youngsters to hunting. Even those too young to hunt can enjoy tagging along with Mom or Dad on one of these warm-season outings.

Dove season opens Sept. 1 and runs through Oct. 30. The daily bag limit is 15 and the possession limit 1 and runs through Oct. 30. The daily bag limit is 15 and the possession limit 30. No special stamps are required, but a valid Kansas hunting license is (unless exempt by law). All semi-automatic and pump shotguns must be plugged to hold no more than three shells, including one in the chamber.

-Murrell

1996-97 DUCK STAMP

Perseverance paid off in the U.S. Fish and Wildlife Services' 46th Federal Duck Stamp Contest as Wilhelm J. Goebel of Somerset, N.J., took top honors after nearly two decades of entering the annual contest. Geobel's oil painting of a pair of surf scoters in flight over New Jersey's southern shoreline features the historic Barnegat lighthouse in the background.

The Federal Duck Stamp (formally known as the Migratory Bird Hunting and Conservation Stamp) is a required annual purchase for waterfowl hunters over 16 years old. Duck Stamps currently cost $15 and are available at most U.S. Post Offices, national wildlife refuges, and some sporting goods stores.

Ninety-eight cents of every Duck Stamp dollar is used for acquiring wetlands habitat for the National Wildlife Refuge System. To date, nearly $500 million dollars raised from Duck Stamp sales have been used to acquire more than 4.2 million acres of wetlands.

"It's a happy coincidence that Duck Stamp sales and duck populations are both at their highest levels in several years," said Service Director Mollie Beattie. "To me, this underscores not only the American public's commitment to waterfowl conservation but also the success of the Federal Duck Stamp itself. It remains one of the easiest, most effective ways for people to contribute to wildlife."

Duck Stamps are also popular among stamp collectors, wildlife artists, and others, more of whom are buying Duck Stamps as a way to contribute to wildlife and habitat protection. In fact, Duck Stamp purchases by non-hunters have risen from 3 percent to 10 percent of all Duck Stamp sales in the last few years.

Stamps are now on sale.

-USFWS release
To walk through the interpretive trail at Dillon Nature Center with a group of first graders is to witness the living definition of “spellbound,” especially when the stroll is guided by one of the center’s excellent naturalists, such as Mary Clark.

Whether inspecting pods of emerging cottonwood seed or tasting wild cedar berries, Clark combines knowledge of the outdoors with instinctive teaching skills to capture an age group naturally inclined to find nature “awesome.” Spontaneity is part of this formula as a crab spider interrupts the dissection of a roughleaf dogwood leaf. The crab spider, Clark explains, has excellent eyesight with which to catch its prey and therefore does not build webs like many other spiders. Every bush or critter on the 30-acre area is fair game for a lesson in nature, planned or not.

Of course, the Dillon Nature Center – on the northeast edge of Hutchinson just a stone’s throw from Sand Hills State Park – is much more than the touch of a single naturalist. Nor is it just for kids. Originally a recreation area for Dillon’s Food Store employees, the Center was given to the Hutchinson Recreation Commission in the early 1970s. Today, the area is a natural arboretum boasting more than 200 species of trees, shrubs, and vines interspersed with native grasses and forbs. Adults frequently visit, individually or in groups. (All group use of the area is by appointment only.) Although having a naturalist along enriches one’s understanding of the area, the 1 1/2-mile nature trail is open to anyone who just wants to take a stroll. A fishing pond is frequently stocked with channel catfish – and, in winter, trout – and a fair population of crappie, bluegill, and bass help make it a popular attraction for families and anglers of every stripe. Center guides also conduct canoe trips on the pond and on the Arkansas River, which flows just south of Hutchinson.

In addition to the natural area, the Center’s main building features exhibits on insects, bees, raptors, a stream table, and a weather lab. Live native fish and animals are also on display.

But it is the grounds – preserved to attract wildlife and designed for optimal viewing – that makes the area special. Fox, deer, coyote, raccoon, opossum, rabbit, squirrel, and about 190 species of birds frequent the grounds from time to time. Interpretive tours are offered year-round, weather permitting, and special programs, such as insect hikes and star walks are also conducted. The Center’s naturalists even lead tours into the Flint Hills and other areas on special occasions.

In summer, especially, the emphasis is on kids. For six weeks in June and early July, the Center holds an adventure camp for grades 1-6.

The Dillon Nature Center is open from 8 a.m. to 5 p.m. Monday through Friday, 10 a.m. to 5 p.m. on Saturday (summer only), 1 p.m. to 5 p.m. on Sunday (summer only), and 1 p.m. to 5 p.m. on Saturday and Sunday in the spring and fall. Admission is free, but guided hikes are $2 per person. For more information, contact naturalists Jim Smith, Mary Clark, or Steve Kinser at the Dillon Nature Center, 3002 30th St., Hutchinson, KS 67502, (316) 663-7411.

If you go, my recommendation is to take a busload of kids (and plenty of helpers). Their enthusiasm and sense of wonder is infectious and may well rekindle your own passion for the outdoors.

–Shoup
PERMIT DEADLINES

**Deer**

**Fall Turkey**
Season dates: Archery - Oct. 1 through Dec. 3 and Dec. 16 through Dec. 31. Firearms - Oct. 9 through Oct. 20. Application periods: Archery and Hunt-Own-Land permits. - Permits available over-the-counter at KDWP regional offices, Pratt office, Topeka office, and selected license vendors. Firearms - Unit 1 (northwest and northcentral Kansas) applications accepted from earliest date available through Aug. 17; Unit 2 (eastern and southcentral Kansas) applications accepted from earliest date available through Oct. 19. Unit 2 fall turkey firearms permits are available over the counter this year.

**Antelope**
Season dates: Archery - Sept. 21 through Sept. 29. Firearms - Oct. 4 through Oct. 7. Application for the unlimited area (Unit 1) of the archery season run through Sept. 20. All other antelope application deadlines ended June 15.

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TOPO CORRECTION

The May/June issue of Kansas Wildlife and Parks contained a short article on sources for topographical maps ("Topo Map Shops," Page 42). The address for one of those sources was in error. The address and phone number for the Wichita Publications Sales Office of the Kansas State Geological Survey should be 4150 Monroe, Wichita, KS 67209, (316) 943-2343, or FAX (316) 943-1261.

—Shoup

WIHA TO EXPAND

Walk-In Hunting Areas (WIHA) provided opportunities for landowners and sportsmen alike in a pilot project conducted last fall in southcentral Kansas. The program was so popular it is being expanded this year.

Landowners who participated in the pilot project benefitted financially through short-term, seasonal leasing of property to the Kansas Department of Wildlife and Parks. Hunters gained access to 10,000 acres in 60 separate tracts. The areas operated much like any public wildlife area, except the properties remained in private ownership. The program is being expanded statewide for the 1996-97 hunting season; department officials hope to lease 100,000 acres throughout the state this fall.

Participating landowners receive payments that vary depending on the number of acres enrolled and the length of the lease. Leases can run from November through January or September through January. The department posts signs on the property and patrols the area throughout the term of the lease.

Much of the land enrolled is Conservation Reserve Program (CRP) acreage although land with significant hunting potential, such as weedy wheat or milo stubble and riparian areas, may also be considered. Almost anyone who owns or leases at least 80 contiguous acres of land can qualify, including resident landowners, absentee landowners, tenant farmers, estate managers, trust managers, and others who manage privately-owned land.

Landowners and managers are invited to contact the nearest Kansas Wildlife and Parks office for more information.

—Mathews

COLEMAN EQUIPS PARKS

This year, the Coleman Company has once again donated all of the equipment needed to operate the department’s Rent-A-Camp program. Coleman donated much of the equipment to initiate this program in 1990 and has, for the last two years, provided virtually all of the equipment used in the program.

—Kathy Pritchett, Parks Division assistant, Pratt

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INTERNET CRITTERS

**Zebra Mussels**
For anyone interested, zebra mussel information can now be found on the Internet. The Western Zebra Mussel Task Force has developed a home page (http://www.usbr.gov/zebra/wmztf.html). Streamflow data for Kansas can also be found at http://www-ks.cr.usgs.gov/. —Tom Mosher, aquatic research biologist, Emporia

**Falcons**
Topeka's popular pair of nesting peregrine falcons are now on the Internet. Western Resources has placed continuous video updates of the peregrine's nest on its home page. The updates consist of pictures from the video camera placed near the nest. A television feed from this camera allows Topekans a view of the nest and eggs from a downtown sidewalk location. Now the same information is being used to produce updates on the Internet. You can visit the nest anytime at http://www.wstnres.com/falcon/.

—Brian Bohnsack, federal aid coordinator, Topeka

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Fishing is something anyone can learn to do. You don't need fancy equipment, and getting started doesn't cost much. A new 5-foot rod and spincasting reel, complete with 6-pound test line, can cost less than $15. (An even cheaper choice is a cane pole.) To this, add #8 or #10 hooks, split shot weights smaller than a pea, and a bobber about the size of a quarter. Throw in a dozen worms, and you're set for many a fishing journey for less than $20.

If you don't want to buy a fishing pole, make one out of an aluminum can. Tape the end of your fishing line to the middle of the can and wrap it 15 or 20 times around the lower half of the can. Attach your hook weight and bobber to the line. Holding the end of the can opposite from your line, gently ease the can back, and swing it forward like a tennis racket. The line will spool off the can, and you're fishing!

In Kansas, kids don't have to buy a fishing license until they are 16 years old. Many areas offer free fishing on city ponds or lakes. Look for places where fish might like to hide, like docks, rocks, trees and bushes in water, and weeds close to shore. The bobber should be close enough to the hook to keep it off the bottom.
There are two kinds of bait. Live bait includes worms, minnows, grasshoppers, and crickets. Artificial bait looks like live bait and can be used over and over again. Spinners, spoons, and jigs are good artificial bait, but live bait is best for beginners. And fish love it.

The three most common fish in Kansas are bluegill, channel catfish, and largemouth bass. Bluegill are small fish that rarely weigh more than one pound. Channel catfish have no scales and can weigh as much as 30 pounds. Largemouth bass are ferocious, leaping fighters that can weigh 10 pounds or more. Of course, most fish are much smaller than these weights.

When you catch a fish, handle it carefully. All fish have sharp fins, and some have teeth. Hold it firmly around the body and gently remove the hook. If you plan to eat the fish, place it on a stringer or in a fish basket and put it back in the water. If you let it go, gently release it in the water.

Fishing can provide hours of summertime fun. It's great for families and people of all ages. If you like to fish, take someone along who hasn't ever done it — even if it's your mom or dad!

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**FUTURE FISHERMAN CODE**

* I Always Practice Safe Fishing. I am careful when casting. I handle all fish hooks carefully. I wear a life jacket when I am in a boat or when I am near deep or running water.

* I Am A Courteous Fisherman. I Don't Litter. I pick up all extra line, leftover bait, candy wrappers and other trash. I don't get too close to someone else who is fishing.

* I Obey Fishing Laws. I have a fishing license when required. I know the size, kind, and number of fish I'm allowed to keep.

* I Respect The Outdoors. I observe but do not disturb other wildlife that live around the water. I release fish right away if I don't plan to eat them.

* I Invite My Friends To Go Fishing With Me, And Help Others Learn To Fish.
“Look at all those suckers trying to get home before dark,” Lennie chuckled, not referring to fish. “We’ll have the lake to ourselves tonight.”

Roy pulled the Blazer up the boat ramp as Lennie and I drifted away from the congestion of weekend boaters leaving the lake. We were feeling pretty smug, knowing that our fishing trip was just beginning, while everyone else’s was over.

The July night fishing trip started like most fishing trips: a phone call on the fishermen’s grapevine. There was a nasty rumor that white bass were hitting like crazy under the lights at Glen Elder Lake. While skeptical, we couldn’t resist the temptation. The three-hour drive took just less than four hours, thanks to Rocky’s shortcut. But it didn’t bother Lennie, who was tickled we’d left in the afternoon instead of the early-morning hours.

The lengthy shortcut was an omen that we should have recognized. The old blacktop turned into a muddy, narrow farm road somewhere between almost the middle of nowhere and the middle of nowhere. We slid and spun, creeping along the trail. We were obviously entertaining to the herds of cattle who stood and watched, acting like they’d never seen a 17-foot white and red, metal-flake bass boat covered with sticky gray mud in the middle of their pasture. Or maybe they were taking bets as to how far we’d actually make it.

Another omen that we should have noticed was the perfect weather. It was calm and clear; a perfect night for night fishing. Oblivious, the three of us cruised the lake in the last minutes of daylight, looking for just the right spot to anchor and put out a light. To our amazement, our graph showed a concentration of fish with schools of shad suspended above them. Things were going so well, we should have simply actually made it.

Not long after we anchored and put out a light, Lennie came alive.

“I think I just had a bite,” he said incredulously, not used to actually getting bites on our night fishing trips.

Lennie was now like a setter on point, clutching his rod with both hands, eyes glued to the tip, visible in the dim glow the halogen lamp.

“That was a bite for sure,” Lennie grunted as he set the hook with enough force to remove the unsuspecting white bass’s lips. “Shoot, I missed him again.”

But Lennie didn’t miss the fish a second later, and when he landed a 1 1/2-pound white, we were ecstatic. Watching the graph, I could see a large school of fish gathering under the boat. If this sounds too good to be true, it was.

We should have known. Things were going entirely too well for sods like us, other than Rocky’s shortcut. But we’d forgotten all about that, and as my rod doubled with the weight of a white bass, I ignored a flash of light, caught out of the corner of my eye.

“This is great,” I said. “I’ve always heard stories about night fishing, but I was beginning to think it was like the notorious nighttime snipe hunt. I wondered if someone wasn’t laughing hysterically while I futilely jigged in the dark.”

Another flash caught my eye, but I ignored it, too. Roy, who hadn’t spoken a word, grunted and set the hook. He concentrates on fishing like he’s working on a math problem. Now that he’d solved the problem and had a fish fighting on the end of his line, his mouth lit up in a broad smile. His smile was reversed, however, by a low rumble off to the northwest.

“A storm,” I finally spoke the forbidden words. It was getting too close to ignore. As much as I wanted to catch whites, I wanted even less to be on the lake in a lightning storm.

“You think that storm’s comin’ our way,” I asked knowingly.

“It might slip north of us,” Roy reasoned. “Let’s keep an eye on it and be ready to head in at any minute.”

That minute came seconds later, when a huge bolt of lightning hit just a few miles north of the lake. Then the wind switched. Cool and brisk, the wind was the final message, and we hurriedly reeled in lines and pulled anchors.

“We can snooze in the Blazer while this blows over,” I said optimistically. “These summer storms usually don’t last long.” Famous last words.

We each claimed a spot in the small Blazer, hoping it would only be for a short time. But this storm hung over us for hours. Lennie, who could sleep hanging by his toes, slept like a baby, while Roy and I woke up frequently to move to less uncomfortable positions, make Lennie stop snoring, and to check the rain. When daylight finally peaked through the windows, it couldn’t have been more welcome.

“Did we really catch some white bass last night, or was it all just a dream?” Lennie mumbled as he tried to wake up.

It really did seem more like a dream than reality, so we decided to cut our losses and drive back home. We could all hear soft, warm, beds calling to us, and the prospects of a long, afternoon nap seemed more appealing than fishing.

“This didn’t happen,” Roy said defiantly. “We didn’t drive 175 miles just to sleep miserably in your car. Let’s just pretend it never happened.”

“No more night fishing,” Lennie declared. “I’ll even get up early next time, but I’ll stick to daytime fishing from now on.”